

**Amendments to the claims:**

This listing of claims will replace all prior versions and listings of claims in the application.

**Listing of claims:**

1. (Previously presented) An isolated nucleic acid or its complement comprising nucleic acid encoding a protein comprising SEQ ID NO: 4.
2. (Previously presented) An isolated nucleic acid or its complement according to claim 1, wherein said nucleic acid comprises the nucleic acid as set forth in SEQ ID NO: 1.
3. (Previously presented) An isolated nucleic acid or its complement according to claim 2, wherein said nucleic acid comprises the nucleic acid as set forth in nucleotides 80-1024 of SEQ ID NO: 1.
- 4-20. (Cancelled).
21. (Previously presented) A plant cell transformed with an isolated nucleic acid sequence or its complement comprising nucleic acid encoding a protein comprising
  - (a) the amino acid sequence as set forth in SEQ ID NO: 4, or
  - (b) an amino acid sequence having at least 95% sequence identity with the amino acid sequence set forth in SEQ ID NO: 4 and which is involved in meiocyte formation in a plant.
22. (Currently amended) ~~The A plant cell transformed with an isolated nucleic acid sequence or its complement according to of~~ claim 21, wherein said isolated nucleic acid ~~sequence~~ comprises a nucleic acid as set forth in SEQ ID NO: 1.

23. (Currently amended) ~~The A-plant cell transformed with the isolated nucleic acid sequence or its complement according to~~ of claim 22, wherein said isolated nucleic acid sequence comprises a nucleic acid as set forth in nucleotides 80-1024 of SEQ ID NO: 1.

24-57. (Cancelled).

58. (Currently amended) An isolated nucleic acid encoding a protein involved in meicyte formation in a plant according to claim 6, wherein said protein comprises:

(a) the same amino acid sequence as set forth in SEQ ID NO: 4, or

(b) an amino acid sequence having greater than about 95% sequence identity to the amino acid sequence set forth in SEQ ID NO:4 and which is involved in meicyte formation in a plant.

59-65. (Cancelled).

66. (Currently amended) An isolated nucleic acid or its complement ~~according to claim 4,~~ wherein said nucleic acid comprises naturally occurring DNA, or DNA degenerate to said naturally occurring DNA from a plant, having at least about 95%-98% identity to the DNA of (a) SEQ ID NO:2 or (b) SEQ ID NO:1, and wherein said nucleic acid encodes a protein which participates in meicyte formation in a plant.

67-69. (Cancelled).

70. (Currently amended) An isolated nucleic acid or its complement ~~according to claim 5,~~ wherein said nucleic acid comprises naturally occurring DNA, or DNA degenerate to said naturally occurring DNA from a plant, having at least about 95%-98% identity to (a) SEQ ID NO:2 or (b) nucleotides 80-1024 of SEQ ID NO:1, and wherein said nucleic acid encodes a protein which participates in meicyte formation in a plant.

71-76. (Cancelled).

77. (New) The isolated nucleic acid of claim 58, wherein said plant is *Arabidopsis*.